

**BEFORE THE DEPARTMENT OF  
NATURAL RESOURCES AND CONSERVATION  
OF THE STATE OF MONTANA**

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<b>APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 43Q 30152396 BY CHERYL KRAMER</b>	) ) )	<b>PRELIMINARY DETERMINATION TO GRANT PERMIT</b>
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On May 28, 2021, Cheryl Kramer (Applicant) submitted Application for Beneficial Water Use Permit No. 43Q 30152396 to the Billings Water Resources Office of the Department of Natural Resources and Conservation (Department or DNRC) for 89 GPM (0.20 CFS) flow rate and 24.61 AF volume. The Department published receipt of the Application on its website. The Department met with the Applicant's consultants, Aaron Redland and Chris McDowell for a scoping meeting on February 17, 2020, with consultant Mike Powers to discuss aspects of the application on June 7, 2021 and with Aaron Redland to discuss the need for a variance and clarify flow rate and volume on July 15, 2021. The Applicant submitted a variance from aquifer testing requirements request on September 2, 2021. Specifically, the Applicant requested variance from ARM 36.12.121 (2)(f, h, j, k) and (3)(b). The Department granted the variance on September 7, 2021.

The Application was determined to be correct and complete as of September 15, 2021. An Environmental Assessment for this Application was completed on September 15, 2021.

**I. INFORMATION**

The Department considered the following information submitted by the Applicant, which is contained in the administrative record.

Application as filed:

- Application for Beneficial Water Use Permit, Form 600
- Attachments
- Maps:     Plat map of proposed subdivision
- Form 633 in electronic format
- Variance Request dated November 25, 2020

- Variance Approval Letter dated December 7, 2020

#### Information Received after Application Filed

- E-mail from Aaron Redland and Michael Powers, Consultants, to Mark Elison, Regional Manager, dated June 9, 2021 clarifying adequate diversion, beneficial use, and requested flow rate.
- Variance Request dated September 2, 2021
- Variance Approval Letter dated September 7, 2021
- E-mail from Aaron Redland, Consultant, to Mark Elison, Regional Manager, dated September 13, 2021, recalculating beneficial use, requested volume, and requested flow rate.
- Copy of the conditions proposed by the Department signed by Cherryl Kramer, Applicant, dated October 5, 2021.

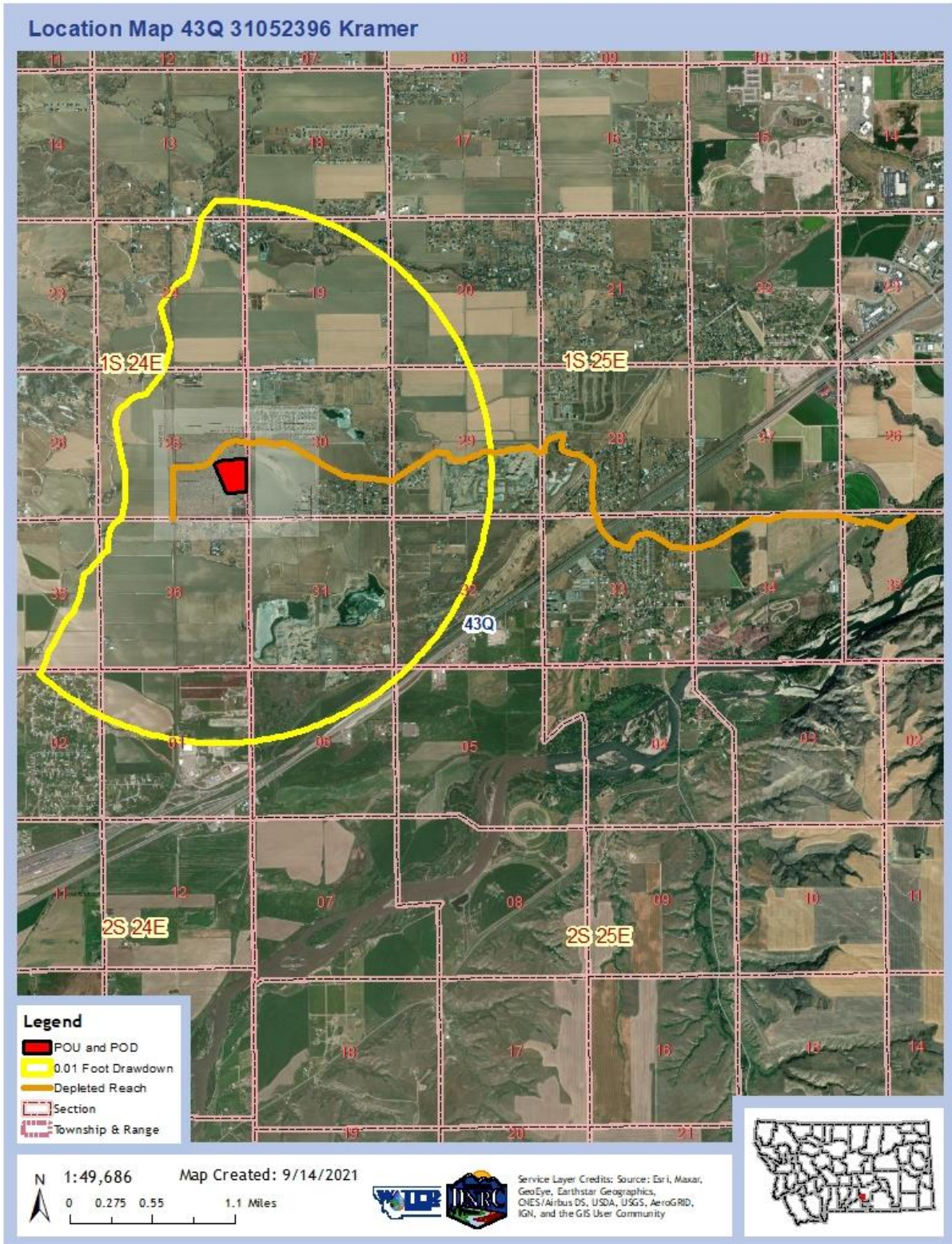
#### Information within the Department's Possession/Knowledge

- Groundwater Permit Application Technical Report by Mark Elison, Regional Manager.
- Aquifer Test Report by Attila Fohnagy, Department Hydrogeologist, dated September 13, 2021.
- Depletion Report by Attila Fohnagy, Department Hydrogeologist, dated September 13, 2021.
- Hydrology of the West Billings Area: Impacts of Land-Use Changes on Water Resources, John Olson & Jon Reiten (2002), Montana Bureau of Mines and Geology, Report of Investigation 10.
- Basic Hydrogeologic Data for the West-Billings Area (1999-2000), Yellowstone County, Montana, John Olson & Jon Reiten (2001), Montana Bureau of Mines and Geology, Open File Report 436.
- DNRC Form 615: Planning Guide for Water Use
- DNRC water rights database

The Department has fully reviewed and considered the evidence and argument submitted in this Application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, chapter 2, part 3, MCA). **NOTE:** Department or DNRC means the Department of Natural Resources & Conservation; CFS means cubic feet per second; GPM means gallons per minute; AF means acre-feet; AC means acres; AF/YR means acre-feet per year; and POD means point of diversion.

## **II. PROPOSED APPROPRIATION**

1. The Applicant proposes to divert groundwater from January 1 to December 31 for multiple domestic use and from April 1 to October 31 for lawn and garden use. Groundwater will be diverted by means of 10 wells approximately 45 feet deep, from January 1 to December 31 at a combined flow rate of 89 GPM (0.20 CFS) up to 24.61 AF, from multiple points of diversion in the E2SE Section 25, T1S, R24E, Yellowstone County. One well for aquifer testing has been drilled. The Applicant proposes a subdivision with 10 residential homes. The Applicant proposes 8.5 AC of lawn and garden irrigation. The place of use is generally located in E2SE Section 25, T1S, R24E, Yellowstone County approximately 5 miles northeast of Laurel, MT.
2. The wells would be installed by individual homeowners and on October 5, 2021, the Applicant agreed to a condition on this appropriation that the water right be owned in the name of the Home Owners Association (HOA).
3. The proposed appropriation lies immediately south of the Danford Drain.



4. The following conditions were proposed by the Department and agreed to by the Applicant on October 5, 2021:

### **1. IMPORTANT INFORMATION**

NOTIFICATION REQUIREMENT: THE APPROPRIATOR SHALL RECORD A DOCUMENT IN THE COURTHOUSE THAT SHALL NOTIFY ALL CURRENT AND FUTURE LANDOWNERS IN THE LAZY KU SUBDIVISION THAT 1) WATER USE MUST BE MEASURED AND RECORDED AS DESCRIBED IN THIS PERMIT; 2) A COPY OF THE WELL LOG MUST BE SUBMITTED TO THE APPROPRIATOR; AND 3) A WATER RIGHT CANNOT BE OWNED BY A PRIVATE INDIVIDUAL, BUT MUST BE HELD IN THE NAME OF THE HOME OWNERS ASSOCIATION. THE APPROPRIATOR SHALL PROVIDE A COPY OF THE RECORDED DOCUMENT IDENTIFYING THESE RESTRICTIONS, FOR EACH LAND OWNER, TO THE WATER RESOURCES REGIONAL OFFICE BY JANUARY 31 OF EACH YEAR.

### **2. WATER MEASUREMENT INFORMATION**

THE APPROPRIATOR SHALL REQUIRE LANDOWNERS IN THE LAZY KU SUBDIVISION TO INSTALL A DEPARTMENT APPROVED WATER USE MEASURING DEVICE. WATER MUST NOT BE DIVERTED FROM THE WELLS UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. THE APPROPRIATOR SHALL KEEP YEARLY WRITTEN RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED FROM JANUARY 1 THROUGH DECEMBER 31 BY ALL WELLS. THE WATER USE RECORDS SHALL BE COMPILED AND SUBMITTED TO THE DEPARTMENT BY JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR.

FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF THE PERMIT. THE RECORDS MUST BE SENT TO THE BILLINGS WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL ENSURE EACH MEASURING DEVICE IS MAINTAINED SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

### **3. IMPORTANT INFORMATION**

WELL LOGS: THE APPROPRIATOR SHALL REQUIRE THE LANDOWNER TO PROVIDE A COPY OF THE WELL LOG TO THE APPROPRIATOR WITHIN 90 DAYS OF COMPLETION OF THE WELL. THE APPROPRIATOR SHALL PROVIDE A COPY OF THE WELL LOG TO THE WATER RESOURCES REGIONAL OFFICE BY JANUARY 31 OF EACH YEAR.

### **III. FINDINGS OF FACT**

#### *A. Physical Availability*

5. Department Hydrogeologist, Attila Felnagy, issued an Aquifer Test Report, dated September 13, 2021. Drawdown projected over the full year period of diversion is a maximum of 0.9 feet leaving an available water column of 34.7 feet.

6. The Aquifer Test Report modeled aquifer properties based on a 24-hour aquifer test at an average flow rate of 68 GPM. Recommended values for transmissivity and storativity are 6,858 ft<sup>2</sup>/day based on the average of seven local aquifer tests and 0.1, taken as a literature value for unconfined sand and gravel aquifers, respectively. Using a pumping rate of 15.3 GPM (flow rate to produce the requested volume over the proposed period of diversion), the modeled 0.01-foot drawdown contour occurs at 9,100 feet from the proposed wells. The volume of total aquifer flux each year within the zone of influence is given by the equation  $Q = TWi$ , where T is transmissivity, W is the width of the zone of influence (taken at 18,200 feet) and i is the groundwater gradient (0.003 ft/ft from Olson, 2005). The volume of total aquifer flux each year within the zone of influence as defined by 0.01 foot of drawdown is 374,447 ft<sup>3</sup>/day or 3,138 AF/YR.

7. The Department finds that the amount of groundwater physically available at the proposed point of diversion is 3,138 AF/YR

8. The Depletion Report, by Attila Felnagy, dated September 13, 2021, concludes that surface water depletion from the proposed wells will be to the Danford Drain. The depleted reach is the Danford Drain downstream from the western line of the southeast quarter of Section 25, T1S, R24E.

**Table 1. Modeled monthly depletions to the Danford Drain in volume (AF) and flow rate (GPM).**

Month	Consumed Volume (AF)	Net Depletions (AF)	Net Depletions (GPM)
January	0.03	0.28	2.02
February	0.03	0.24	1.92
March	0.03	0.21	1.52
April	0.30	0.36	2.73
May	1.97	1.41	10.26
June	3.45	2.70	20.34
July	4.70	3.77	27.51
August	4.24	3.82	27.86
September	2.10	2.58	19.45
October	0.60	1.26	9.20
November	0.03	0.55	4.15
December	0.03	0.35	2.54

9. The Depletion Report concludes that the reach of the Danford Drain downstream of the western line of the southeast quarter of Section 25, T1S, R24E is hydraulically connected to the source aquifer and would be depleted by this groundwater appropriation. Measurements of the flow in Danford Drain approximately 3.8 miles downstream of the top of the depleted reach were made by the Montana Bureau of Mines and Geology from January 1999 to May 2000. There were no measurements taken in September and the flow in September is taken as the average of August and October flows. There are five water rights on Danford Drain between the location of the measurements and the top of the depleted reach.

**Table 2. Water Rights Between the Measurement Location and the Top of the Depleted Reach**

WR NUMBER	OWNERS	PURPOSES	MEANS OF DIVERSION	FLOW RATE GPM	FLOW RATE CFS	ACRES	VOLUME	PERIOD OF DIVERSION	ANIMAL UNITS
43Q 208801 00	JTL GROUP INC	IRRIGATION	PUMP	758.47	1.69	45.00	184.50	04/01 to 10/31	0.0
43Q 45860 00	DONALD B RUDIO; RICHARD C RUDIO	IRRIGATION	HEADGATE	1795.2	4	107.00	438.70	04/01 to 10/19	0.0



43Q 102615 00	SAMM LLC	STOCK	LIVESTOCK DIRECT FROM SOURCE			0.00	34.00	01/01 to 12/31	1000.0
43Q 208235 00	JTL GROUP INC	STOCK	LIVESTOCK DIRECT FROM SOURCE			0.00	13.60	01/01 to 12/31	400.0
43Q 120292 00	KRAFT, EDWARD & ROXANA LIVING TRUST	STOCK	LIVESTOCK DIRECT FROM SOURCE			0.00	2.14	01/01 to 12/31	63.0

10. The existing legal demands between the measurement site and the top of the depleted reach were added to the measurements to determine physical availability of water at the top of the depleted reach. Volume is calculated as monthly flow times 1.98 times the number of days in the month. Statements of Claim for irrigation that listed no volume were assigned 4.1 AF/AC based on Department standards for 45% efficiency in climate area 1. Livestock direct from source rights were assigned a flow rate 35 GPM total and a volume of 0.034 AF/AU. The distribution of flow rate and volume by month for these water rights is in the file.

**Table 3. Physically available flow on Danford Drain by month (CFS).**

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean Measured Monthly Flow Rate (CFS)	4.05	3.57	2.90	3.00	7.10	114.00	20.85	24.80	22.00	19.20	11.83	6.97
Legal Demands Between Measurement and Top of Depleted Reach (CFS)	0.08	0.08	0.08	5.77	5.77	5.77	5.77	5.77	5.77	5.77	0.08	0.08
Physical Availability of Water in the Depleted Reach (CFS)	4.13	3.65	2.98	8.77	12.87	119.77	26.62	30.57	27.77	24.97	11.91	7.05



**Table 4. Physically available flow on Danford Drain by month (AF).**

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean Measured Monthly Flow Rate (AF)	248.6	197.9	178.0	178.2	435.8	6771.6	1279.8	1522.2	1306.8	1178.5	702.7	427.8
Legal Demands Between Measurement and Top of Depleted Reach (AF)	4.22	3.82	4.22	95.11	98.28	95.11	98.28	98.28	95.11	72.22	4.09	4.22
Physical Availability of Water in the Depleted Reach (AF)	252.8	201.7	182.2	273.3	534.1	6866.7	1378.1	1620.5	1401.9	1250.7	706.8	432.0

*B. Legal Availability*

11. Based on a 0.01-foot drawdown contour at 9,100 feet from the proposed wells, a Department Hydrogeologist determined, as an Appendix to the Aquifer Test Report, that there are 168 existing groundwater rights within the zone of influence. A list is in the file. Of those, 155 are Ground Water Certificates, 1 is an Exempt Right, 10 are Statements of Claim and 2 are Provisional Permits. There are 24 Ground Water Certificates for which no volume is recorded in the database. The legal demand for these water rights was taken as 3.66 AF each, representing the average volume of the 131 Ground Water Certificates for which volumes are recorded. Three Statements of Claim listed no volume. Domestic rights were assigned 1.0 AF and the stock right were assigned 0.034 AF/AU. The total annual legal demand on groundwater within the zone of influence is 788.71 AF/YR. Below is a comparison of the water supply and current legal demands for groundwater.

**Table 5. Comparison of physically available groundwater to legal demands.**

Physically Available (AF/year)	Existing Legal Demands (AF/year)	Physically Available minus Existing Legal Demands (AF/year)
3,138	788.71	2349.29

12. The physical amount of water available is 3,138 AF/YR and the existing legal demands of groundwater total 788.71 AF/YR. The Department finds that the comparison shows that groundwater is legally available. (3,138 AF – 788.71 AF = 2,349.29 AF).

13. There are twelve water rights on the Danford Drain between the top of the depleted reach and the confluence with the Yellowstone River. The volume for irrigation water rights was taken as the number of acres times the low end of the range for 45% efficiency flood irrigation in climate area 1 (4.1 AF/AC). Stock water rights were assigned 0.034 AF/AU. The distribution of flow rate and volume by month for these water rights is in the file.

**Table 6. Water Rights Between the Top of the Depleted Reach and the Yellowstone River**

WR NUMBER	OWNERS	PURPOSES	MEANS OF DIVERSION	FLOW RATE (GPM)	FLOW RATE (CFS)	ACRES	VOL	PERIOD OF DIVERSION	AU
43Q 42699 00	SHIRLEY M WAGNER	IRRIGATION	PUMP	150	0.33	8.00	32.00	05/01 to 10/15	0.0
43Q 208801 00	JTL GROUP INC	IRRIGATION	PUMP	758.47	1.69	45.00	184.50	04/01 to 10/31	0.0
43Q 208181 00	ROBERT EASTMAN; MONICA L KISER; DALE D MAXWELL; VALERIE MAXWELL; CONNIE M WATTS	IRRIGATION	HEADGATE	125.12	0.27	7.36	30.18	06/01 to 09/04	0.0
43Q 45860 00	DONALD B RUDIO; RICHARD C RUDIO	IRRIGATION	HEADGATE	1795.2	4	107.00	438.70	04/01 to 10/19	0.0
43Q 195891 00	DANIEL J HICKEY; JOSEPH D HICKEY; KELLY R HICKEY; LINDALEE E HICKEY	IRRIGATION	PUMP	2244	5	104.03	426.52	05/01 to 09/19	0.0
43Q 14939 00	KEVIN D ANTHONY; DEANNA C BRUNN	IRRIGATION	PUMP	41.99	0.09	2.47	10.13	03/01 to 11/04	0.0
43Q 208180 00	KRISTIN ANDERSON ; KURT ANDERSON	IRRIGATION	HEADGATE	208.42	0.46	12.26	50.27	06/01 to 09/04	0.0
43Q 102615 00	SAMM LLC	STOCK	LIVESTOCK DIRECT FROM SOURCE			0.00	34.00	01/01 to 12/31	1000.0

43Q 208235 00	JTL GROUP INC	STOCK	LIVESTOCK DIRECT FROM SOURCE			0.00	13.60	01/01 to 12/31	400.0
43Q 30107340	GENE J KLAMERT; RONNA J KLAMERT	STOCK	LIVESTOCK DIRECT FROM SOURCE			0.00	8.40	01/01 to 12/31	500.0
43Q 120292 00	KRAFT, EDWARD & ROXANA LIVING TRUST	STOCK	LIVESTOCK DIRECT FROM SOURCE			0.00	2.14	01/01 to 12/31	63.0
43Q 195892 00	HICKEY, VIOLA FERN TRUST	STOCK	LIVESTOCK DIRECT FROM SOURCE			0.00	3.42	03/01 to 10/31	150.0

14. The legal demands between the top of the depleted reach and the confluence with the Yellowstone River were subtracted from the physically available water at the top of the depleted reach to determine the difference. The tables below show that the physically available water in the Danford Drain exceeds the legal demands by more than the predicted depletion.

**Table 7. Comparison of the physical water supply and current legal demands for Danford Drain (CFS).**

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Physically Available Water at the Top of the Depleted Reach (CFS)	4.13	3.65	2.98	8.77	12.87	119.77	26.62	30.57	27.77	24.97	11.91	7.05
Legal Demands on the Depleted Reach (CFS)	0.08	0.08	0.17	5.86	11.19	11.91	11.91	11.91	11.19	6.19	0.08	0.08
Physical Availability Minus Legal Demands in the Depleted Reach (CFS)	4.05	3.57	2.81	2.91	1.68	107.86	14.71	18.66	16.58	18.78	11.83	6.97

**Table 8. Comparison of the physical water supply and current legal demands for Danford Drain (AF).**

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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<b>Physically Available Water at the Top of the Depleted Reach (AF)</b>	252.8	201.7	182.2	273.3	534.1	6866.7	1378.1	1620.5	1401.9	1250.7	706.8	432.0
<b>Legal Demands on the Depleted Reach (AF)</b>	4.94	4.46	6.63	97.44	199.7	218.40	225.68	225.68	163.57	76.99	4.78	4.94
<b>Physical Availability Minus Legal Demands in the Depleted Reach (AF)</b>	247.9	197.3	175.6	175.9	334.4	6648.3	1152.4	1394.8	1238.3	1173.7	702.0	427.1

### *C. Adverse Effect*

15. The Applicant would restrict irrigation watering in the event a call is made. Restrictions would vary up to and including complete prohibition on outdoor watering.

16. Attila Felnagy, Department Hydrogeologist, in the Aquifer Test Report, modeled drawdown in other wells using the aquifer properties above and a monthly pumping schedule accounting for domestic and lawn and garden uses. Modeled drawdown was greatest at the end of July of the fifth year of pumping. Drawdown in excess of 1 foot occurs in wells within 30 feet of the proposed wells. There are no water rights in the source aquifer predicted to experience drawdown greater than 1 foot.

17. The physically available volume of groundwater minus all legal demands is greater than the Applicant's request.

18. Physically available water minus legal demands within the depleted reach of the Danford Drain exceeds modeled depletions resulting from Applicant's request.

19. Based on available water in excess of legal demands on depleted surface water sources, the lack of any water rights that would experience one foot of drawdown and the Applicant's plan to prevent adverse effect from the groundwater appropriation, the Department finds that the proposed appropriation will not cause adverse effect to existing water rights or reservations. Because 10 separate wells will be serving individual residences or parks, the Department will add the following conditions agreed to by the Applicant on October 5, 2021.

**IMPORTANT INFORMATION**

NOTIFICATION REQUIREMENT: THE APPROPRIATOR SHALL RECORD A DOCUMENT IN THE COURTHOUSE THAT SHALL NOTIFY ALL CURRENT AND FUTURE LANDOWNERS IN LAZY KU SUBDIVISION THAT 1) WATER USE MUST BE MEASURED AND RECORDED AS DESCRIBED IN THIS PERMIT; 2) A COPY OF THE WELL LOG MUST BE SUBMITTED TO THE APPROPRIATOR; AND 3) A WATER RIGHT CANNOT BE OWNED BY A PRIVATE INDIVIDUAL, BUT MUST BE HELD IN THE NAME OF THE HOME OWNERS ASSOCIATION. THE APPROPRIATOR SHALL PROVIDE A COPY OF THE RECORDED DOCUMENT IDENTIFYING THESE RESTRICTIONS, FOR EACH LAND OWNER, TO THE WATER RESOURCES REGIONAL OFFICE BY JANUARY 31 OF EACH YEAR.

**WATER MEASUREMENT INFORMATION**

THE APPROPRIATOR SHALL REQUIRE LANDOWNERS IN THE LAZY KU SUBDIVISION TO INSTALL A DEPARTMENT APPROVED WATER USE MEASURING DEVICE. WATER MUST NOT BE DIVERTED FROM THE WELLS UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. THE APPROPRIATOR SHALL KEEP YEARLY WRITTEN RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED FROM JANUARY 1 THROUGH DECEMBER 31 BY ALL WELLS. THE WATER USE RECORDS SHALL BE COMPILED AND SUBMITTED TO THE DEPARTMENT BY JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR.

FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF THE PERMIT. THE RECORDS MUST BE SENT TO THE BILLINGS WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL ENSURE EACH MEASURING DEVICE IS MAINTAINED SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

*D. Adequate Diversion*

20. All wells will be drilled by a licensed well contractor and will be placed in designated areas.

21. Modeling by Department Hydrogeologist, Attila Felnagy, showed that the tested well could experience 0.9 feet of drawdown, leaving 34.7 feet of remaining available water column. Total maximum drawdown was modeled as the sum of actual drawdown and modeled well interference drawdown. Similar available water columns are predicted for the remaining 9 wells assuming that all wells are drilled to a comparable depth. To ensure that wells are drilled to a comparable depth and will have available water column after drawdown, the Department will add the following condition, agreed to by the Applicant on October 5, 2021.

### **IMPORTANT INFORMATION**

WELL LOGS: THE APPROPRIATOR SHALL REQUIRE THE LANDOWNER TO PROVIDE A COPY OF THE WELL LOG TO THE APPROPRIATOR WITHIN 90 DAYS OF COMPLETION OF THE WELL. THE APPROPRIATOR SHALL PROVIDE A COPY OF THE WELL LOG TO THE WATER RESOURCES REGIONAL OFFICE BY JANUARY 31 OF EACH YEAR.

#### *E. Beneficial Use*

22. The Applicant requests 89 GPM (0.20 CFS) flow rate and 24.61 AF volume for multiple domestic and lawn and garden uses. Multiple domestic and lawn and garden are recognized beneficial uses under the Montana Water Use Act.

23. The Applicant proposes 10 residential homes, for which 300 gallons per day (GPD) per home is requested (100 GPD/person). Over one year, this amounts to 0.336 AF/Residence or a total of 3.36 AF. The Department Planning Guide for Water Use (Form 615) gives 75 GPD per person for single family homes and 100 to 150 GPD/person for luxury dwellings consistent with the requested volume. The Applicant proposes 8.5 AC of lawn and garden irrigation for the domestic units. The Department standard for lawn and garden irrigation is 2.5 AF/AC and 8.5 AC requires 21.25 AF of water ( $8.5 \times 2.5 = 21.25$ ). The total request is for 24.61 AF ( $3.36 + 21.25 = 24.61$  AF).

24. The Applicant requests maximum flow rate of 89 GPM for 10 individual wells. The maximum flow rate of 89 GPM is based upon predicted peak flows associated with residential and lawn and garden uses. Based on domestic peaking factors and calculated watering intervals for lawn and garden, the peak flow is 9 GPM domestic and 80 GPM lawn and garden.

*F. Possessory Interest*

25. The Applicant signed the application form affirming the Applicant has possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use.

**IV. CONCLUSIONS OF LAW**

26. The Montana Constitution and Montana Water Use Act recognize the protection of senior appropriations while at the same time providing for the development and use of the waters of the state by the public. Mont. Const. Art. IX, §3; Mont. Code Ann. § 85-2-102; Montana Power Co. v. Carey, 211 Mont. 91, 96, 685 P.2d 336, 339 (1984)(the MWUA provides for the regulated development of water use in Montana through allowing for the new appropriation of water and protecting senior water rights from encroachment by junior appropriators).

27. Pursuant to § 85-2-302(1), MCA, except as provided in §§ 85-2-306 and 85-2-369, MCA, a person may not appropriate water or commence construction of diversion, impoundment, withdrawal, or related distribution works except by applying for and receiving a permit from the Department. See § 85-2-102(1), MCA. An applicant in a beneficial water use permit proceeding must affirmatively prove the applicable criteria in § 85-2-311, MCA, by a preponderance of the evidence. Bostwick Properties, Inc. v. Montana Dept. of Natural Resources and Conservation, 2009 MT 181, ¶ 21, 351 Mont. 26, 208 P.3d 868 (Bostwick I).

28. Under this Preliminary Determination, the relevant permit criteria in Mont. Code Ann § 85-2-311 are:

... the department shall issue a permit if the applicant proves by a preponderance of evidence that the following criteria are met:

(a) (i) there is water physically available at the proposed point of diversion in the amount that the applicant seeks to appropriate; and

(ii) water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:

(A) identification of physical water availability;

(B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and

(C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water



supply at the proposed point of diversion with the existing legal demands on the supply of water.

(b) the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. In this subsection (1)(b), adverse effect must be determined based on a consideration of an applicant's plan for the exercise of the permit that demonstrates that the applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied. [The applicant is not required to prove a lack of adverse effect for any water right identified in a written consent to approval filed pursuant to subsection (9) in connection with a permit application.]

(c) the proposed means of diversion, construction, and operation of the appropriation works are adequate;

(d) the proposed use of water is a beneficial use;

(e) the applicant has a possessory interest or the written consent of the person with the possessory interest in the property where the water is to be put to beneficial use . . . ;

The determination of whether an application has satisfied the § 85-2-311, MCA criteria is committed to the discretion of the Department. Bostwick I at ¶ 21. Pursuant to § 85-2-312, MCA, the Department may condition permits as it deems necessary to meet the statutory criteria.

29. The Department may take notice of judicially cognizable facts and generally recognized technical or scientific facts within the Department's specialized knowledge, as specifically identified in this document. ARM 36.12.221(4).

#### *A. Physical Availability*

30. Pursuant to § 85-2-311(1)(a)(i), MCA, an applicant must prove by a preponderance of the evidence that “there is water physically available at the proposed point of diversion in the amount that the applicant seeks to appropriate.” See also ARM 36.12.1702.

31. The Applicant has proven that groundwater is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. § 85-2-311(1)(a)(i), MCA. (FOF 5 - 10)

#### *B. Legal Availability*

32. Pursuant to § 85-2-311(1)(a), MCA, an applicant must prove by a preponderance of the evidence that water is legally available during the period in which the applicant seeks to appropriate, in the amount requested based upon a comparative analysis of physical availability of water to the legal demands on the sources impacted by the proposed use. See also ARM 36.12.1704 and 36.12.1705; Montana Power Co., 211 Mont. at 99, 685 P.2d at 340 (Permit

granted to include only early irrigation season because no water legally available in late irrigation season); *In the Matter of Application for Beneficial Water Use Permit No. 81705-g76F by Hanson* (DNRC Final Order 1992).

33. Montana water law recognizes the that due to the connectivity between surface water and ground water, except for in unique circumstances, the appropriation of groundwater results in the depletion of surface water through induced infiltration and/or pre-stream capture. Accordingly, an application for applicant groundwater appropriation must prove that the proposed appropriation will not result in surface water depletions, or analyze the legal availability of surface water in light of the proposed ground water appropriation. Montana Trout Unlimited v. DNRC, 2006 MT 72, 331 Mont. 483, 133 P.3d 224; Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 5 (Court affirmed denial of permit in part for failure to prove legal availability of stream depletion to slough and Beaverhead River); Robert and Marlene Takle v. DNRC et al., Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994)(affirming DNRC denial of Applications for Beneficial Water Use Permit Nos. 76691-76H, 72842-76H, 76692-76H and 76070-76H; underground tributary flow cannot be taken to the detriment of other appropriators including surface appropriators and ground water appropriators must prove unappropriated surface water)(citing Perkins v. Kramer, 148 Mont. 355, 423 P.2d 587 (1966)).

34. Applicant has proven by a preponderance of the evidence that water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the amount requested, based on the records of the Department and other evidence provided to the Department. § 85-2-311(1)(a)(ii), MCA. (FOF 11 – 14)

#### *C. Adverse Effect*

35. Pursuant to § 85-2-311(1)(b), MCA, the Applicant bears the affirmative burden of proving by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. Analysis of adverse effect must be determined based on a consideration of an applicant's plan for the exercise of the permit that demonstrates that the applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied. See Montana Power Co.,

211 Mont. at 96, 685 P.2d at 331 (purpose of the Water Use Act is to protect senior appropriators from encroachment by junior users); Bostwick I., ¶ 21; Bostwick Properties Inc. v DNRC, 2013 MT 48, ¶¶ 25, 38, 43, 369 Mont. 150, 296 P.3d 1154 (Bostwick II). An applicant is not required to analyze, and the Department may not consider, the potential adverse effect to a water right for which a written consent to approval of the permit has been filed. § 85-2-311(1) and (9), MCA.

36. Based upon its analysis of potentially impacted water rights, the Applicant has proven by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. § 85-2-311(1)(b), MCA. (FOF 15 - 19)

#### *D. Adequacy of Diversion*

37. Pursuant to § 85-2-311(1)(c), MCA, an Applicant must demonstrate that the proposed means of diversion, construction, and operation of the appropriation works are adequate. The adequate means of diversion statutory test merely codifies and encapsulates the notion that the means of diversion must be reasonably effective, i.e., must not result in a waste of the resource. *In the Matter of Application for Beneficial Water Use Permit No. 33983s41Q by Hoyt* (DNRC Final Order 1981); § 85-2-312(1)(a), MCA.

38. Applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. § 85-2-311(1)(c), MCA (FOF 20 – 21).

#### *E. Beneficial Use*

39. Under § 85-2-311(1)(d), MCA, an Applicant must prove by a preponderance of the evidence the proposed use is a beneficial use. It is a fundamental premise of Montana water law that beneficial use is the basis, measure, and limit of a water right. E.g., McDonald, supra; Toohey v. Campbell, 24 Mont. 13, 60 P. 396(1900). Accordingly, the amount of water under a permit is limited to the amount of water necessary to sustain the beneficial use. Sitz Ranch v. DNRC, at Pg. 3 (rejecting applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet).

40. Applicant proposes to use water for multiple domestic and lawn and garden irrigation uses which are recognized beneficial uses. § 85-2-102(54), MCA. Applicant has proven by a

preponderance of the evidence multiple domestic and lawn and garden uses are beneficial uses and that 89 GPM (0.20 CFS) flow rate and 24.61 AF of diverted volume of water requested is the amount needed to sustain the beneficial use. § 85-2-311(1)(d), MCA, (FOF 22 - 24)

*F. Possessory Interest/Place of Use*

41. Pursuant to § 85-2-311(1)(e), MCA, an Applicant must prove by a preponderance of the evidence that it has a possessory interest or the written consent of the person with the possessory interest in the property where the water is to be put to beneficial use. See ARM 36.12.1802.
42. The Applicant has proven by a preponderance of the evidence that it has possessory interest in the property where the water is to be put to beneficial use. § 85-2-311(1)(e), MCA. (FOF 25)

**PRELIMINARY DETERMINATION**

Subject to the terms, analysis, and conditions in this Order, the Department preliminarily determines that this Application for Beneficial Water Use Permit No. 43Q 30152396 should be GRANTED

The Department determines the Applicant may divert groundwater, by means of 10 wells, from January 1 through December 31 at 89 GPM (0.20 CFS) up to 24.61 AF, from points in the E2SE Section 25, T1S, R24E, Yellowstone County for multiple domestic use from January 1 to December 31 and lawn and garden use from April 1 through October 31. The Applicant may irrigate 8.5 AC of lawn and garden. The place of use is located in the E2SE Section 25, T1S, R24E, Yellowstone County.

The application will be subject to the following conditions, limitations or restrictions.

**1. IMPORTANT INFORMATION**

NOTIFICATION REQUIREMENT: THE APPROPRIATOR SHALL RECORD A DOCUMENT IN THE COURTHOUSE THAT SHALL NOTIFY ALL CURRENT AND FUTURE LANDOWNERS IN LAZY KU SUBDIVISION THAT 1) WATER USE MUST BE MEASURED AND RECORDED AS DESCRIBED IN THIS PERMIT; 2) A COPY OF THE WELL LOG MUST BE SUBMITTED TO THE APPROPRIATOR; AND 3) A WATER RIGHT CANNOT BE OWNED BY A PRIVATE INDIVIDUAL, BUT MUST BE HELD IN THE NAME OF THE HOME OWNERS ASSOCIATION. THE APPROPRIATOR SHALL PROVIDE A COPY OF THE RECORDED DOCUMENT

IDENTIFYING THESE RESTRICTIONS, FOR EACH LAND OWNER, TO THE WATER RESOURCES REGIONAL OFFICE BY JANUARY 31 OF EACH YEAR.

## **2. WATER MEASUREMENT INFORMATION**

THE APPROPRIATOR SHALL REQUIRE LANDOWNERS IN THE LAZY KU SUBDIVISION TO INSTALL A DEPARTMENT APPROVED WATER USE MEASURING DEVICE. WATER MUST NOT BE DIVERTED FROM THE WELLS UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. THE APPROPRIATOR SHALL KEEP YEARLY WRITTEN RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED FROM JANUARY 1 THROUGH DECEMBER 31 BY ALL WELLS. THE WATER USE RECORDS SHALL BE COMPILED AND SUBMITTED TO THE DEPARTMENT BY JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR.

FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF THE PERMIT. THE RECORDS MUST BE SENT TO THE BILLINGS WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL ENSURE EACH MEASURING DEVICE IS MAINTAINED SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

## **3. IMPORTANT INFORMATION**

WELL LOGS: THE APPROPRIATOR SHALL REQUIRE THE LANDOWNER TO PROVIDE A COPY OF THE WELL LOG TO THE APPROPRIATOR WITHIN 90 DAYS OF COMPLETION OF THE WELL. THE APPROPRIATOR SHALL PROVIDE A COPY OF THE WELL LOG TO THE WATER RESOURCES REGIONAL OFFICE BY JANUARY 31 OF EACH YEAR.

### **NOTICE**

This Department will provide public notice of this Application and the Department's Preliminary Determination to Grant pursuant to §§ 85-2-307, MCA. The Department will set a deadline for objections to this Application pursuant to §§ 85-2-307, and -308, MCA. If this

Application receives no valid objection or all valid objections are unconditionally withdrawn, the Department will grant this Application as herein approved. If this Application receives a valid objection, the application and objection will proceed to a contested case proceeding pursuant to Title 2 Chapter 4 Part 6, MCA, and § 85-2-309, MCA. If valid objections to an application are received and withdrawn with stipulated conditions and the department preliminarily determined to grant the permit or change in appropriation right, the department will grant the permit or change subject to conditions necessary to satisfy applicable criteria.

DATED this 15<sup>th</sup> day of October 2021.

/Original signed by Mark Elison/

Mark Elison, Regional Manager

Billings Regional Office

Department of Natural Resources and Conservation

**CERTIFICATE OF SERVICE**

This certifies that a true and correct copy of the PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 15<sup>th</sup> day of October 2021, by first class United States mail.

CHERRYL KRAMER  
3116 S 72<sup>ND</sup> ST W  
BILLINGS, MT 59106

AARON REDLAND & MICHAEL POWERS  
WWC ENGINEERING  
550 S 24<sup>th</sup> ST W, SUITE 201  
BILLINGS, MT 59102

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BILLINGS REGIONAL OFFICE

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DATE